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ABSTRACT

From the 1950's to the 1970's, graduate student tuition funding trends at Saint Louis University were studied for the business administration, education, law, and medicine programs. Administration of a questionnaire to graduate degree recipients resulted in a return of 1,453 usable responses. The most important external source for tuition funding in business administration was employer funding. The continuing decline in external funding for graduate programs in education resulted primarily because of a reduction in funding by religious orders. There has been an increasing ability of law students to obtain Federal Government loan funds, and medical students have increasingly received federal and state loans and grants. It is suggested that private graduate education institutions need to accurately estimate the shifts in magnitude of potential external tuition funding, both by specific program and within a given time period. A literature review, a sample questionnaire, and summary response data are included. (SW)

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TRENDS IN FUNDING SELECTED GRADUATE PROFESSIONAL PROGRAMS IN A PRIVATE URBAN UNIVERSITY: AN EXPLORATORY STUDY

by

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DIGEST

Problem

Historically, there have been various sources available for funding the tuition of graduate students seeking a post baccalaureate degree at a private university. While these sources have been diverse they have fallen into two distinct categories: (a) external to the graduate student and (b) internal.

The general research hypothesis suggested that external tuition funding had declined between the 1950's and the 1970's in the following graduate professional programs: Business Administration (Commerce), Education, Law, and Medicine.

Purpose of Study

The purpose of this study was to determine the overall external/internal tuition funding trends for a research population consisting of specific individual sub-populations within the framework of the total graduate program at Saint Louis University from the 1950's to the 1970's. A further goal was to delineate the sub-trends of each tuition funding source, by program. By delineating such trends, the financial officer would be in a position to offer academic officers advice

regarding the probability of future demand for specific programs. Further, he could utilize the trends to project future economic and financial constraints and requirements for his institution.

Procedure

All possible tuition funding sources for the specified programs were delineated. The population of those recipients of graduate professional degrees in the specified programs and years were surveyed by questionnaire. Out of a population of 1,453, a usable response return of 51% was achieved.

Findings

The research hypothesis was rejected for the population and for all sub-populations except recipients of graduate degrees in Education. The null hypothesis was accepted for the sub-population consisting of all recipients of Masters Degrees. Tuition funding trends for recipients of graduate degrees in Business Administration, Law, and Medicine substantiated the alternate hypothesis. The composite late 1950's sub-population funded approximately one out of every three tuition dollars externally. The mid-1970's composite sub-population was able to fund approximately one out of every two tuition dollars externally.

Conclusions

The most important external source for tuition funding in Business Administration has been Employer Funding. The continuing decline in external funding for graduate programs in Education resulted primarily because of a reduction in funding by religious orders. The inclining external trend in Law is the primary result of the increasing ability of law students to attract Federal Government loan funds. External tuition funding for medical students has provided increasing proportions of total funding. These funds have been provided primarily by Federal and state loan and grant programs.

It is obvious from the research findings that graduate education is not monolithic. One must avoid the temptation to generalize about multi-disciplinary fields and for different time periods. Each program studied was subject to special external influences resulting in both favorable and unfavorable tuition funding outlooks. The flow of tuition funding for each of the researched programs was not an even flow over the time period of the study.

Because each program displayed special characteristics, future research would be most beneficial if it were carried out on an intra-program rather than an

inter-program basis. Also, the isolation of individual cost components in graduate higher education is of continuing importance in order to draw clear cost differentials between private and public educational systems. Such cost differentials relate, primarily, to tuition costs. Because of this fact it is imperative for private graduate education to accurately estimate the shifts in magnitude of potential external tuition funding, both by specific program and within a given time period.

It should be stressed that this research examines the changes in the pattern of the various sources of graduate tuition funding at one private university and should not be construed to be indicative for all private universities. Financial officers at other private universities may wish to utilize the research methodology employed in this research to determine specific tuition funding trends, by program, within their own institutions. It should be recognized that past trends do not assure the direction of future developments. Trend analyses of this problem area must be considered as a first basic step in the evaluation process which will lay the foundation for future research.

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CHAPTER I

INTRODUCTION AND BACKGROUND

Purpose of Study

Each year thousands of college graduates consider continuing their formal education beyond the Bachelor's Degree in one of the major programs leading toward a Master of Business Administration, Master of Arts, Master of Science or a Doctorate degree. The decision to do graduate work cannot be made solely on the basis of desire and ability. A very important practical consideration is availability of financial resources.

The cost of graduate education can be divided into four general categories: (a) tuition costs, (b) related costs (books, fees, etc.), (c) living costs (i.e. food, clothing, shelter, etc.), and (d) opportunity costs (i.e. income one foregoes as a result of being a student).

The individual considering additional formal education beyond the Bachelor's Degree usually has an increased financial responsibility for his continuing education. While it is true that many parents continue to fund formal education beyond the Bachelor's Degree,

many expect the son or daughter to help defray the cost of graduate education through either part-time employment or through financial assistance external to the family resources.

Other prospective graduate students no longer consider themselves even partially dependent upon their parents for financial assistance. This usually occurs when a decision is made later in life to pursue a graduate degree. Many graduate students in their thirties and forties have the additional burden of their own household to support and maintain. For this reason the prospective graduate student must necessarily give more emphasis to financial considerations than he may have as an 18 year old college freshman.

A study completed some years ago found the total average income of graduate students to be adequate for their needs (Davis, 1962). We are, however, faced with a totally different economic environment today. This economic environment, characterized by extremely high rates of inflation, high unemployment, a reduction of personal loan funds and general pessimism about the economy, must necessarily cast a shadow over the future of private higher education in general, with special detrimental impact upon private graduate higher education. This deteriorating economic condition has

caused many students interested in graduate education to select the public institution because of their inability to finance their education in private institutions.

The concern of the private institution is that a balance between private and public graduate higher education must be maintained regardless of the national economic environment. The maintenance of this balance between private and public graduate education depends, to a large extent, upon the ability of the private institutions to attract a sufficient number of graduate students so as to maintain a stable financial base of operation. The private institution faces the challenge of developing ways to attract the prospective graduate student by offering superior programs and an opportunity to continue his education through various financial assistance plans.

If private graduate higher education is to compete successfully with the public institution it must be able to identify trends in the way students finance their graduate education. Specifically, the private institution must be able to ascertain which of the various sources of student tuition have been eroding.

The objective of this study is to provide graduate student tuition funding trends at one private institution (Saint Louis University) in four specified

graduate programs (Business Administration, Education, Law, and Medicine) over a period of time from the 1950's to the 1970's. This student tuition funding trend study will indicate those sources of funds that have been declining during this period. By isolating those specific sources of tuition that are diminishing in magnitude, the university may have an opportunity to take remedial action commensurate with the desire of those interested in maintaining the balance between private and public graduate education. Such action would help solidify private graduate education as a viable force within the educational system of the United States.

Importance of Study

Cheit (1971) was one of the first to see what he called "the new depression in higher education." He included Saint Louis University as one of eleven leading colleges and universities in financial trouble. Private institutions constituted 56% of all colleges and universities studied by Cheit but 82% of those schools classified as evidencing financial difficulty.

According to Cheit,

> One would expect variation, given the great variety in size, type, and aspiration of the 11 schools in financial difficulty. But whatever the other differences, these schools have certain characteristics in common that mark their financial condition . . . this

group of campuses is distinguished by the following six characteristics:

1. All nine private institutions are deficit financing. Both of the public institutions are on what administrators describe as 'stand still' budgets.

2. These institutions are reducing the number of faculty positions either by cutback, or by a freeze on further faculty hiring without centralized approval, or by both. Where there is graduate work, the number of teaching and research assistants is being reduced.

3. These schools are holding enrollment stable, or growing. Either way, they are increasing their student-faculty ratios.

4. Each of these institutions is making cuts in programs. These cuts range widely and include such things as reduction in the number of courses, reductions in graduate programs and (in the case of Saint Louis University) elimination of two professional schools--dentistry and engineering.

5. Each of these institutions is either reducing the number of administrative positions or not adding ones that are needed.

6. Finally, research institutions are reducing the budgets of research centers, institutes, and related activities which they consider important parts of their academic programs. Other institutions and some research institutions are reducing programs that are considered important parts of campus intellectual life [Cheit, 1971, pp. 94-95].

Cheit's interviewer noted the following at Saint Louis University:

The School of Dentistry, the four engineering departments, . . . --have been closed. Forty-five faculty positions were eliminated, and 40 permanent faculty members were consequently given two years notice of severance from

> employment. The current allocation of the Medical School . . . is less than . . . what it was three years ago. Library acquisitions and research programs were trimmed. Faculty salaries were raised only 3%--it is feared that some faculty may leave as a result. Many courses were postponed, and the student faculty ratio has risen [Cheit, 1972, p. 99].

The present study can be an important tool to the financial planner within the private institution because an increase in external tuition funding could attract potential graduate students away from the graduate programs of other private and public institutions. Conversely, declines in external tuition funding could certainly result in potential graduate students slipping away to other private institutions and to the public graduate school.

Apparently, the important sources of tuition funding for specific graduate programs change over a period of years. If the general trend were simply more funds each year there would be no particular need to explore trends.

There is some indication that the availability of funds have declined for students working within certain graduate programs. If this is actually the case, the outlook for private graduate education may not be bright. The consequences resulting from a continuous decline in external tuition funding have serious financial ramifications both on the student and the

institution offering these types of programs. Graduate programs experiencing a downward funding trend could continue to be available only to the affluent, and if this downward trend in availability of funds continued these programs could gradually disappear from the private university. The demise of these programs from private institutions would eliminate the balance between public and private graduate education and would be detrimental to higher education in general.

The objectives of this study will be to:

1. Determine the sources of tuition funding for recipients of graduate degrees at Saint Louis University for the specified graduate professional programs for selected years in the 1950's, 1960's, and 1970's.

sources.

3. Develop a trend curve for each tuition funding source by program for the years to be surveyed.

4. Segregate tuition funding sources as to:

   (a) increasing funding trends

   (b) decreasing funding trends

   (c) level funding trends

   (d) erratic funding trends

5. Analyze and evaluate trends by source of funding and offer recommendations for remedial action for those programs experiencing a decline in funding

from selected external sources.

The importance of the study to the university under examination will be to provide the institution with empirical evidence that will show a possible void in tuition funding for specified graduate programs. Of additional importance is the development of research methodology and the possible utilization of this research procedure as a tool for a greatly expanded effort on a national basis.

Organization of Study

Chapter II describes the problems, states the hypotheses under consideration, defines terms, and discusses the limitations of the study.

Chapter III is a review of related literature.

Chapter IV outlines the research procedure utilized in the survey of recipients of graduate degrees in the programs included in the survey and summarizes the raw data generated from the trend graphs and develops trend conclusions.

Chapter V provides analysis of the findings based upon evaluation and interpretation of the data.

Supporting exhibits are presented in the Appendix.

CHAPTER II

THE PROBLEM

Background of the Problem

Historically, there have been various sources available for funding the tuition of graduate students seeking a professional degree at a private university. These sources fall into two distinct categories:

1. External funding sources
2. Internal funding sources.

External tuition funding sources may be categorized as:

1. State government funding--loans
2. State government funding--grants
3. Federal government funding--loans
4. Federal government funding--grants
5. University funding--loans
6. University funding--fellowships
7. Tuition waiver or remission (assistantship/research fellow)
8. Tuition waiver or remission (faculty/staff spouse, son, daughter)
9. Employer funding
10. Veteran benefit funding

11. Foreign government funding
12. Funding by religious order/church
13. Private scholarship
14. Industrial scholarship
15. Foundation grant
16. Other external source

Internal sources may be categorized as:

1. Student funding--from current income
2. Student savings
3. Parent funding--from current income
4. Parent savings
5. Spouse funding--from current income
6. Spouse savings
7. Conventional loan--student
8. Conventional loan--parent
9. Conventional loan--spouse
10. Private trust fund for the benefit of the student
11. Gift
12. Other internal source

If the general trend were simply more tuition funding each year (across the board) there would be no particular need to explore trends to determine which sources were providing increasing funds and which were providing a decreasing amount of funds.

However, a steady erosion of external tuition funding in those selected programs included in this study, Business Administration, Education, Law, and Medicine, should provide a signal for increased efforts to fill the void by those interested in maintaining viable graduate programs within the private university.

A study of the problem begins with quantifying, in percentage terms, the alternative sources of tuition funding. The sources themselves have been delineated in previous studies. Only by quantifying in percentage terms, for the period under review, the relative measure of each potential source, can the problem be isolated and its magnitude determined.

Are certain sources "drying up" relative to others? If so, are these declines apparent to those interested in maintaining a balance between public and private graduate higher education?

Problem

The problem approached in this study was to explore the magnitude, scope, and trends of students' external tuition funding sources in the graduate programs of Business Administration, Education, Law, and Medicine at Saint Louis University.

Hypotheses

Research Hypothesis: Saint Louis University's graduate students' external tuition funding sources have provided a decreased proportion of tuition costs (between the 1950's and the 1970's) in the following graduate professional programs: Business Administration, Education, Law, and Medicine.

Conversely, internal funding sources have provided an increased proportion of tuition costs for the same programs over the same period of time.

Alternate Hypothesis: Saint Louis University's graduate students' external funding sources have provided an increased proportion of tuition costs (between the 1960's and 1970's) in the following graduate programs: Business Administration, Education, Law, and Medicine.

Conversely internal funding sources have provided a decreased proportion of tuition costs for the same programs over the same period of time.

Null Hypothesis: Both external and internal tuition funding sources show no discernible increasing or decreasing trends for the period

Definitions

A. Operational Definitions:

1. ALPHA funding sources: those tuition funding sources that are external to the

graduate student's, or his family's, financial resources (as described earlier in this chapter).

2. BETA funding sources: those tuition funding sources that are internal; i.e. those funds that come from the graduate student's, or his family's, financial resources (as described earlier in this chapter).

3. Financing/funding: In this study the terms "financing" and "funding" do not necessarily mean "borrowing" or otherwise providing an obligation to repay (although they may, in certain instances). Rather, the terms are used in a more general sense so as to convey the source of funds. Such a source of funds may be loan, may be gift, or may be the utilization of income or savings.

B. Technical Definitions:

1. Tuition: The direct monetary cost for courses leading to the subject graduate degree. Tuition does not include the related monetary costs of the degree such as miscellaneous fees, books,

supplies, thesis or dissertation research, miscellaneous other direct educational expenses, general living expenses, or income foregone while pursuing the subject degree.

Limitations

This study is based primarily upon the data collected from a questionnaire mailed to 100% of the population of those individuals who received graduate degrees at Saint Louis University in the selected years and in the following programs: Business Administration, Education, Law, and Medicine. A 51% return was achieved.

Further, only tuition cost is being researched. No conclusions concerning funding trends for the total education cost of the subject graduate degrees should be drawn.

CHAPTER III

REVIEW OF RELATED LITERATURE

A review of the literature revealed many previous research studies in the area of funding student costs in higher education. These previous studies concentrated, in the main, upon the total funding package for a particular point in time. In essence, the previous studies have tended to be static total funding studies with few attempts made to segregate specific elements of student costs (i.e. tuition only, or books only, etc.). Further, since the previous studies have been "static" studies, none were found in which long run trends have been ascertained either in total or by specified cost factors.

Dent (1972) presented the results of a study that had, as its purpose, the discovery of the means that college students in Washington State used in financing their undergraduate college education. This study, conducted at the direction of the state of Washington legislature directed the council on higher education to make a comprehensive study of the problems and methods of financing post secondary education in the state. In accordance with these directions, the council

undertook:

> A. An analysis of the philosophical premises that underlie the present cost/price structure in post secondary education
> B. The historical development of methods in financing higher education
> C. The possible options open to the state in restructuring higher education finance [Dent, 1972, p. 1].

Dent (1972) attempted to segregate and quantify student costs. The average cost of attendance was computed for student sub-populations in all three segments (community colleges, public four year institutions, and private colleges and universities).

> Exclusive of tuition, the nine month maintenance budget (room and books, transportation and clothing, recreation and incidental expense) for all students, on the average, ranged from $1,800 to $2,000 per year. The analysis by student characteristics, married-single, self-supporting, living with parents, etc., displayed a consistent pattern among all segments. Two major differences were noted: in the comparison of sub-populations, community college students and women consistently reported lower average budgets than four year institution students or men [Dent, 1972, p. iv].

Davis (1962) surveyed 2,842 graduate students in the following disciplines: Physical Sciences, 948; Biological Sciences, 382; Social Sciences, 663; Humanities, 841; Interdisciplinary, 8. The survey classified income sources, for the total support of the graduate student, into 11 categories as follows:

1. Stipend
2. Veteran Benefits

3. Withdrawal from savings
4. Part-time job
5. Full time job
6. Spouse's job
7. Aid from parents
8. Investments
9. Loans
10. Aid from spouse's parents
11. Other

Davis (1962) noted that this classification was somewhat arbitrary.

> The frequency or infrequency of a given source could be increased or decreased by combination or subdivision of categories. Thus, if investments were divided into real estate and other, frequencies would be smaller, while, if savings and investments were combined as 'capital' the frequency would be higher. For most analyses, stipend and veteran benefits are combined. In addition, it should be noted that the unit involved is the academic year, not the calendar year, the fruits from the previous summer's employment (two-thirds of the sample worked the previous summer) appearing as available savings and money from the subsequent summer and not being available to pay 1958-1959 bills. It should also be noted that by the definitions, high income does not necessarily represent a favorable economic position because borrowings are treated the same as earnings or gifts. Thus, the question is how much money the student has available, not how much is available free of an obligation to repay it or work for it [Davis, 1962, p. 37].

In summary, Davis (1962) indicated that the stipend was

clearly the most common source of income for graduate students. Further, part-time and full time jobs were found to be important sources of supplementary income especially among those graduate students with family obligations.

It should be noted that both Dent (1972) and Davis (1962) agree that segregating and quantifying student costs in higher education have provided continuing problems to the researcher because the accumulation of data must be separated in an arbitrary manner based upon the research requirements of the researcher. Accordingly, comparability of findings has been adversely affected.

Haven and Horch (1972) made an extensive study of student and family financing for a year of post secondary education. This study included a detailed accounting for the 1969-1970 academic year of the resources and expenditures of unmarried full time students, most of whom were college sophomores. Major emphasis was placed on the institutional practice of packaging (or combining) grants, loans, and jobs, and the relationship of student indebtedness to persistence in college and plans for continuing education on the undergraduate and graduate levels.

An analysis of the resources of the research

population revealed that parents provided most of the student's income (44%). This study, however, was limited to a population sample of college sophomores. Although such findings may be generalized to the entire population of college sophomores during the research period, they may not be generalized to include graduate students because previous and subsequent research indicates a higher frequency of self-employment among graduate students.

Haven and Horch (1972) limited their research to college sophomores. However, Hunter (1967) published an important research study dealing with the financial status of graduate students. This study presented the results of a survey conducted by the Office of Education on a nationwide sample of students enrolled in programs leading to a degree beyond a Bachelor's in the Arts and Sciences in 68 institutions. This research quantified the differences in the students' cost of graduate private education as compared to graduate public education. The study divided this cost into academic costs and living costs. Academic costs consisted primarily of tuition, fees, and books. This research showed that academic costs were approximately two and one-half times greater for the graduate student in the private institution. Since most of the academic expense incurred by the graduate

student in the private institution was in the form of tuition, his ability to attract outside funding was deemed critical to the students' decision to attend a private institution as opposed to a public institution.

Warkov (1965) provided a portrait of the academic and employment characteristics of bona fide graduate students in the following fields: Engineering, Physical Sciences, Life Sciences, Behavioral Sciences, Humanities. He analyzed stipend holdings in American graduate schools, the magnitude of support provided by the institutions, and sources of income for non-financial expense of the graduate student, including a detailed analysis of the academic and non-academic expenses incurred by students in the five composite fields of study.

It is interesting to note that Warkov (1965) continued emphasizing the importance of the stipend to the graduate student. This continued emphasis re-affirmed the position held by Davis (1962). Warkov's population consisted of 20,114 graduate students sampled from 130 graduate schools in the spring of 1963. The author described, in detail, the extent of stipend holding in the five composite fields of study; sources and types of stipends held during the academic year 1962-1963; dollar amounts; and academic and other correlates of stipend holding. This research also

provided the institutional correlates of stipend holding by analyzing the support pattern of students in terms of selected institutional characteristics of schools attended during the spring term, 1963. The study also offers a detailed description of all sources and amounts of income reported by students in the five composite fields of study and traces the pattern of stipend and non-stipend support of students in various academic, institutional, and other categories.

Finally, Warkov (1965) presented a detailed analysis of the academic and non-academic expenses incurred by students in the five composite fields of study during 1962-1963; considered academic and certain other correlates of the pattern of expenditures; and also described selected characteristics of students in the selected fields that are associated with reliance on loans for academic and other purposes during the year under study.

Warkov (1965) and Davis (1962) echoed the emphasis of many writers of the 1960's. This emphasis re-affirmed the significance of the stipend as the most important potential source of external tuition funding for the graduate student. Not until the 1970's did literature begin to explore the more creative methods to externally fund the graduate student's tuition.

Rauh (1972) provided the first important work along these lines.

According to Rauh (1972) private colleges viewed with increasing alarm the deterioration of their financial positions. As income from endowments and contributions remained relatively static, cost increments were met by the only means within institutional control--increased tuition. Alongside the trend to a higher priced structure (but not demonstratively because of it) students began to move to public institutions. Private colleges found their share of enrollment dropping from 40% in 1960 to 26% in 1970. It was hardly reassuring, according to Rauh, to raise prices in the face of declining demand.

> With increased educational costs has come the need to enlarge student financial assistance activities. It has been a traditional role of colleges--especially private colleges--to help students manage the cost of attending college. There is, therefore, a close bond between the overall financial situation and financial aid policies and activities [Rauh, 1972, p. 1].

Rauh's (1972) study, therefore, was conceived as a means of finding out how the financial viability of the private college might be strengthened through change in financial assistance programs. Stated somewhat differently, the study was proposed as a means of determining whether there were more effective ways to utilize existing financial aid resources. Such

improvements might be brought about, according to Rauh, through different loan concepts, altered mix of aid forms, and more effective use of assistance programs external to the college.

> A further objective was to see whether there were activities that could be carried out better through consortial arrangements than through the individual efforts of the 24 member colleges included in this research study [Rauh, 1972, p. 1].

Finally, some consideration was given to the factors that affect educational cost--i.e. "how to increase productivity." According to Rauh (1972), any reduction in or restraint of unit educational costs was of itself a powerful instrument of financial aid.

What emerged clearly from this study was the conclusion that financial aid in 1972 was quite different from the original concept of enabling worthy students (both graduate and undergraduate) to attend the college of their choice. It became the crucial instrument through which colleges maintained their enrollments at a level sufficient to support their programs. The financial viability of the member colleges in the study was inextricably tied to student assistance programs. While the colleges displayed amazing variety in almost every area tested by the data, they had in common one compelling restriction--income dependent on enrollment and enrollment dependent on financial aid. The data

showed that 74% of operating revenues came from tuition, and 46% of the students received some form of aid. The combinations through which this assistance was put together showed all the variations one would expect from 24 individual colleges. The packages had in common only that outright grants outweighed assistance through loans.

These packages were derived from widely assorted sources of income--from college, from philanthropy, and from public funds. With such an array of programs all the colleges had resorted to the diverting unrestricted current income into student aid as the means for providing flexibility and cohesion. It was this kind of money--totally within the colleges' discretion, both as to amount and use--that glued the packages together according to the author.

> The size of this appropriation and the use to which it was put constituted one of the most important issues raised by this study. In essence, the practice constituted overstating the tuition to those who were able to pay and then returning the overage to those who needed assistance. Two major policy questions were inherent in this practice. First, how large a markup could be tolerated before the market support weakened? Second, how could the proceeds of this markup be applied to achieve the maximum return on that income? [Rauh, 1972, p. 73].

According to Rauh (1972), it was unlikely that any definitive answer to the first question existed.

There was simply no data at hand that related price to market. Neither the stated tuition nor the average tuition after deducting grants correlated with market position as measured by the number of applications received. However, the second question had answers that were worthy of exploration. One of those was to alter the ratio of grants to loans, but in a setting that was somewhat different from the conventional loan. The study suggested that newly created loan funds may be based on repayment schedules related to post graduate income with the further possibility that some of the indebtedness may be forgiven; that is, the concept of a "deferred scholarship" was introduced. To implement such different concepts of loan assistance, the establishment of a consortial lending agency was suggested. However, any enlargement of loan activities was probably doomed to failure if inadequate cash flow was not assured, and for that reason, the study proposed totally revised procedures for loan collections. Other consortial activities were discussed: the establishment of common positions on public policies, the development of consortial marketing programs, the standardization of financial aid procedures and packaging, and the use of common data systems.

> In all of these a balance must be achieved between the potential advantages inherent

> to cooperative endeavors and the sacrifice of some measure of indepent determination [Rauh, 1972, p. 74].

Rauh's (1972) efforts provided the groundwork for continued creativity in the funding of student cost in higher education.

Lansing, Lorimer, and Moriguchi (1960) surveyed 2,749 family units in 1959 in such a manner that they constituted a probability sample of the population of the United States. His goal was quite simple: how was higher education being financed?

> There was wide variation from student to student in total annual expense depending on whether the student attended full time or part-time, whether he lived at home or at college, whether he attended a publicly or privately supported institution, and whether he attended a junior college, a college offering a Bachelor's Degree, or a university [Lansing, Lorimer, & Moriguchi, 1960, p. 1].

According to these authors:

> The amount of money which parents contributed annually toward the education of a particular student depended on the family's income and on the number of other children in the family to be educated [Lansing, et al, 1960, pp. 1-2].

Four out of ten families reported they found it difficult to meet the cost of educating their children. About two families out of ten reported <u>both</u> that they found it difficult to finance their children's education and that they felt their financial help was inadequate. Families in the lower income group were more likely than

those in the upper income groups to report financial hardship in this sense. But even of those families with incomes of $10,000 or over in 1959 and a child in college, about one out of ten reported financial strain. Of families with only one child, one out of ten reported financial strain, while of families with five or more children, four out of ten reported both that they found it difficult to meet the cost of educating the children and that they felt their help was inadequate.

Lansing et al (1960) were concerned with the adequacy of the total student funding package and the mechanics of student funding.

Merrett (1965), however, provided a conceptual overview of the problems relating to the student's funding of his higher education in a capitalistic society. He compared student funding in the United States with the various forms of funding available in foreign countries. This analysis was philosophical rather than mathematical. Merrett's primary effort was to show the philosophical differences between funding American higher education and higher education in socialistic or communistic countries. These differences were summarized as:

1. Relatively expensive higher education for many (in the United States) and

2. Free higher education for the elite (in socialistic and communistic countries).

Merrett (1965) concluded that both philosophies were probably too extreme and that higher education in general would benefit from a movement toward the middle of the two extreme philosophies. Since Merrett's work was heavily philosophical he made no attempt to quantify; neither did he offer any hint as to probable future trends.

Fein and Weber (1971) provide quantitative data on the costs (student costs) of obtaining a Doctor of Medicine Degree. This research showed that the student who enters medical school has most often already completed four years of undergraduate higher education. He still faces a long period in which there will be substantial financial outlays and large foregone earnings. During the school year 1967-1968 the average annual expenses reported amounted to $4,394 (including tuition, fees, books, personal maintenance, lodging, family expense, etc.).

> School expenses averaged $1,003 for students attending public school and $1,956 for students attending private schools. They accounted for 25% and 40% of the student's total expenses respectively. The total expense varied with the marital status of the student, the size of his family, the control of the medical school (public or private), and the student's year in medical school [Fein & Weber, 1971, p. 105].

The authors also point out that tuition charges, which are the largest proportion of these expenses, have been rising rapidly, particularly at private schools.

> Between the 1957 and 1967 school years, the median tuition charges for resident students at public schools increased by 42%, while median tuition charges at private schools increased by 91% [Fein & Weber, 1971, p. 105].

As regards funding sources, Fein and Weber (1971) found that four out of five students used funds from their own savings and earnings to provide part of the required financing. However, the majority found medical school so demanding (or job opportunities so limited) that only 23% reported they were employed during the current school term. Thirty-two percent of the total student funding requirement came from the student's own earnings or savings. This, and loans from the student's families, spouse's earnings, loans from outside the family, and non-refundable grants filled the gap between the student's own funds and expenses.

> Sixty-five percent of the students received some support from their parents. In addition, 80% of the wives of the married medical students contributed to the family income [Fein & Weber, 1971, p. 108].

Fein and Weber (1971) and Davis (1962) are in agreement about the importance of spouse income for married medical students.

Butter (1966) made an attempt to develop a

single set of definitions, concepts, and measurement tools to be applied uniformly to cost analyses of four Ph.D. programs in Physics, Zoology, Sociology, and English. The author gathered the required information on the nature of cost estimates which were implicit in the subsequent rate of return analysis. This research was concentrated in the research phase of the doctoral programs only and this cost delineated as a component of the total cost of training Ph.D's. In addition, according to Butter, opportunity costs, costs of utilizing physical facilities, and the indirect or supplemental cost elements were estimated. Tables of measurable relative rates of return to graduate education were constructed. While the relative magnitudes of the unmeasured external contributions made by the Ph.D's. under study were not identifiable, the measurable findings pointed to lower investment yields for English and Sociology Ph.D's. This study, in essence, concentrated on delineating opportunity costs of four specified graduate disciplines.

The Committee for Corporate Support of American Universities, in its publication, Graduate Schools of Private Universities: Leadership for the Nation (1969), researched the financial needs of the United States university system and came to the conclusion that this

system has multiplied in the last few decades, partly because of the rise in the number of students, but primarily because of the continuing quest for new knowledge. This research, published in 1969, showed that since 1966 more than 50% of the total annual cost of colleges and universities had been provided by the Federal Government. However, this report had been restricted to the then recent government budgeting which, together with the reduction in the availability of public funds, would put private universities with graduate schools in special jeopardy. According to this research, the leading private universities with graduate schools represented a valuable national asset. Their independence helped to further academic freedom in all institutions and lend it strength and flexibility. The dependence of corporate industry on the university system was and is as great as any other sector of the United States according to this report. It was suggested that the corporate community increase its support to private colleges and universities that had graduate schools by providing groups of these institutions with unrestricted grants for a given period of time. The proposed selection would be based upon considerations of quality, contributions to research, and student training.

Millett (1972) gave heavy emphasis to a continued

need to share the cost of graduate education. According to Millett, graduate education research and public service were important activities of American universities in 1972. This study showed that a pattern of financing for these activities had clearly emerged. Support of graduate education, according to Millett, must be shared by the graduate student and by society. This sharing of the cost of graduate instruction varied among the state universities and the private universities surveyed. The trend in this decade, however, should be for the graduate student's share of the costs of graduate education in the public university to increase. A hoped for trend is for a decrease at the private institution. According to the author this offsetting decrease at the private institution is necessary if we are to continue to have pluralism of graduate instruction programs with their varying emphasis upon research and practice. Millett (1972) thus re-affirms the concern of previous writers. This concern is for the continued viability of private higher education. The concern is prompted by the two-fold threat of higher costs, and increasing availability of the public institution as an educational alternative for those that cannot find external funding, and who cannot afford the higher costs.

Summary

The related literature has been concerned, in the main, with the aggregate cost factors relating to the financing of the students' post secondary education. The most important explicit cost of higher education in a private university (tuition) has been researched only as it may relate to the total cost package. This has been the case even though it is probably the easiest cost to quantify in terms of either dollars or percentage of total cost.

Related literature has shown a considerable void in emphasizing the importance of tuition differentials between private and public graduate higher education. The magnitude of this differential and its importance to the continuing balance between private and public sectors in graduate higher education is magnified because all other costs of graduate education tend to be equal; hence, tuition funding becomes the pivotal factor.

CHAPTER IV

RESEARCH PROCEDURE

Procedure and Methodology

In order to test the hypotheses under consideration it was necessary to survey either a random sample of the population of graduate degree recipients or the population itself. Fifteen hundred twenty-three graduate degrees were awarded in Business Administration, Education, Law, and Medicine for the years 1959, 1964, 1969, and 1974. However, 70 of those 1,523 were either deceased or had no current mailing address. Accordingly, 1,453 degree recipients constituted the population. The decision was made to survey the entire population.

A computerized list of degree recipients was provided by Saint Louis University. Each of the 1,453 degree recipients was mailed a cover letter and questionnaire (see Appendix A). The cover letter outlined the problem being researched and asked for assistance by completing a simple postcard questionnaire form. The questionnaire listed all possible sources of tuition funding (16 ALPHA and 12 BETA sources).

The degree recipient was asked to estimate the percentage of tuition funding derived from each source,

and reminded that the total of the percentage estimates must equal 100%. Emphasis was placed on the fact that only tuition costs should be considered. Other expenses of education were to be ignored. In addition, he was asked to list the degree received. As an incentive to participate the respondent was given the opportunity to request a synopsis of the research by listing his name and address. This was, however, strictly optional. The return to the researcher was by first class postal permit, and accordingly, no postage expense was incurred on the part of the respondent.

An overall usable return of 51% was achieved. A statistical presentation of the responses is shown in Appendix B.

Presentation of Data

The raw data generated from the Questionnaire were utilized in the construction of a response summary and trend graph for each of the 28 sources and for each of the 4 programs.

The format of each response summary and trend graph was standardized for comparable presentation of data. Included with the presentation of each trend graph was the response summary for the specified

program. The response summary listed the degrees received by the respondents and the responses by year.

Each trend graph was constructed so that the vertical axis showed the percentage of total tuition received from the subject source; the horizontal axis represented the year of the degree holder. The lowest percentage value was -5%. The graph was constructed in this manner so that the sources having a trend line of 0% for all four years would not have to be superimposed over the horizontal axis representing the year. The trend graphs listed funding source number, description, and classification of funding source.

In addition, the trend was listed as either increasing, decreasing, level, or erratic. The substantiated hypothesis related the findings received from the responses, to the original research hypotheses previously listed. Those research hypotheses suggested that ALPHA (external) sources were decreasing; conversely, BETA (internal) sources were increasing.

Sources following the trends expected were classified "substantiated hypothesis: Research," sources showing reverse trends were classified as "substantiated hypothesis: Alternate." Sources showing level trends and erratic trends were classified as "substantiated hypothesis: Null."

Individual trend graphs provided the required data for the construction of the summary graphs shown later in this chapter.

Summary of Data

The volume of data generated from the survey required two summarizing steps before a meaningful presentation could be made in graph form. The first step was to summarize the raw data received from the questionnaire by computing the arithmetic mean for the percentage values of tuition funding by program, year, and source. These arithmetic means were then used to construct the trend graphs. Finally, these trend graphs were utlized in constructing the summary graphs presented within this chapter. These summaries indicate composite trends by sub-population and provide the necessary data for analysis. The summaries by sub-population follow.

Business Administration. External (ALPHA) sources of tuition funding accounted for 65% of all tuition in 1959; 47% in 1964; 65% in 1969; and 74% in 1974. Conversely, internal (BETA) sources accounted for 35% in 1959; 53% in 1964; 35% in 1969; and 26% in 1974 (Table 1).

Not only has the external (ALPHA) trend continued upward from 1964 to 1974, but it was also greater in 1974

TABLE 1

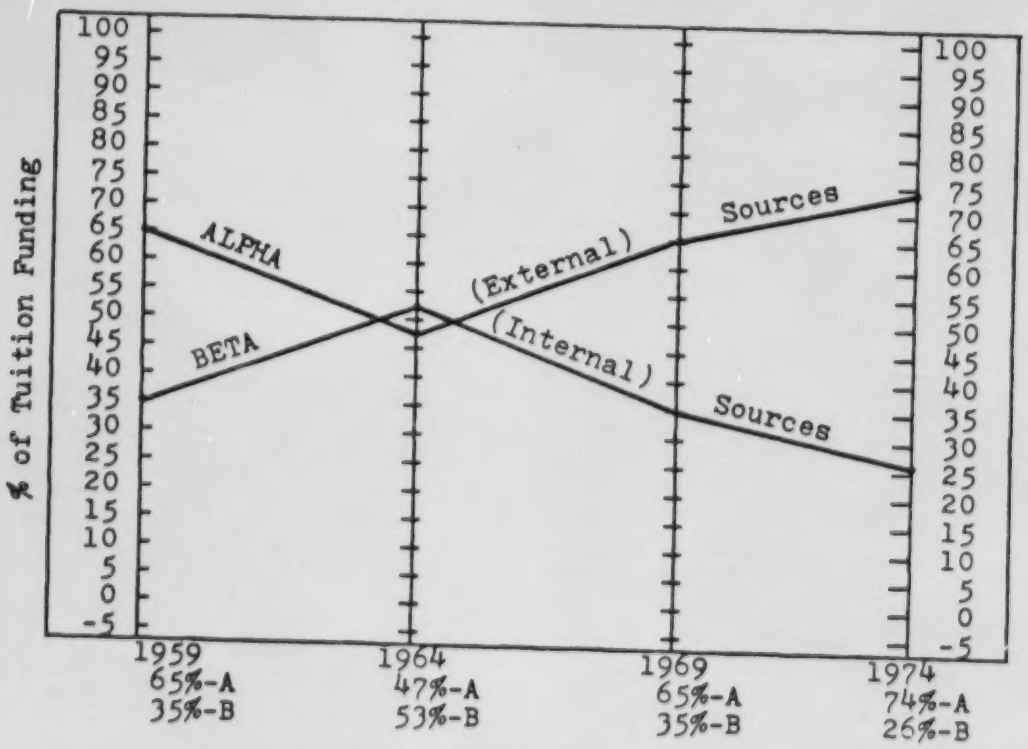
Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All ALPHA (External) and BETA (Internal) Sources for Recipients of Graduate Degrees in Business Administration (Code: BA (Summary) - A & B)

Degrees	Usable Responses				Totals
	1959	1964	1969	1974	
M.S. in C	4	9	37	6	56
MBA	12	10	28	72	122
Ph.D. in BA	0	0	0	2	2
Totals	16	19	65	80	180

Trend: ALPHA-Increasing BETA-Decreasing

Classification: ALPHA (External) BETA (Internal)

Substantiated Hypothesis: ALPHA-Alternate BETA-Alternate



than it was in 1959. These trends reject the general research hypothesis. The data indicated that external funding has provided an increasing proportion of the tuition dollar for graduate students in Business Administration. These conclusions appear valid only for Master's Degrees. Because only two doctorates in Business Administration responded, these conclusions cannot be generalized to include Doctor's of Philosophy in Business Administration. The alternate hypothesis is substantiated for both ALPHA and BETA trends.

Education. External (ALPHA) sources of tuition funding accounted for 61% of all tuition dollars in 1959; 66% in 1964; 50% in 1969; and 33% in 1974. Conversely, internal (BETA) sources accounted for 39% in 1959; 34% in 1964; 50% in 1969; and 67% in 1974. Clearly, the magnitudes of ALPHA and BETA funding have been reversed between 1959 and 1974 (Table 2).

These trends support the research hypothesis as to both ALPHA and BETA trends.

Law. External (ALPHA) sources of tuition funding accounted for 35% of all tuition dollars in 1959; 23% in 1964; 42% in 1969; and 47% in 1974. Conversely, internal (BETA) sources accounted for 65% in 1959; 77% in 1964; 58% in 1969; and 53% in 1974 (Table 3).

The trend showed that roughly one out of every

TABLE 2

Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All ALPHA (External) and BETA (Internal) Sources for Recipients of Graduate Degrees in Education
(Code: E (Summary) - A & B)

Degrees	Usable Responses				Totals
	1959	1964	1969	1974	
M.A.	15	17	24	25	81
Ed.M	9	16	18	2	45
Ph.D. in Ed.	2	1	17	28	48
Totals	26	34	59	55	174

Trend: ALPHA-Decreasing BETA-Increasing

Classification: ALPHA (External) BETA (Internal)

Substantiated Hypothesis: ALPHA-Research BETA-Research

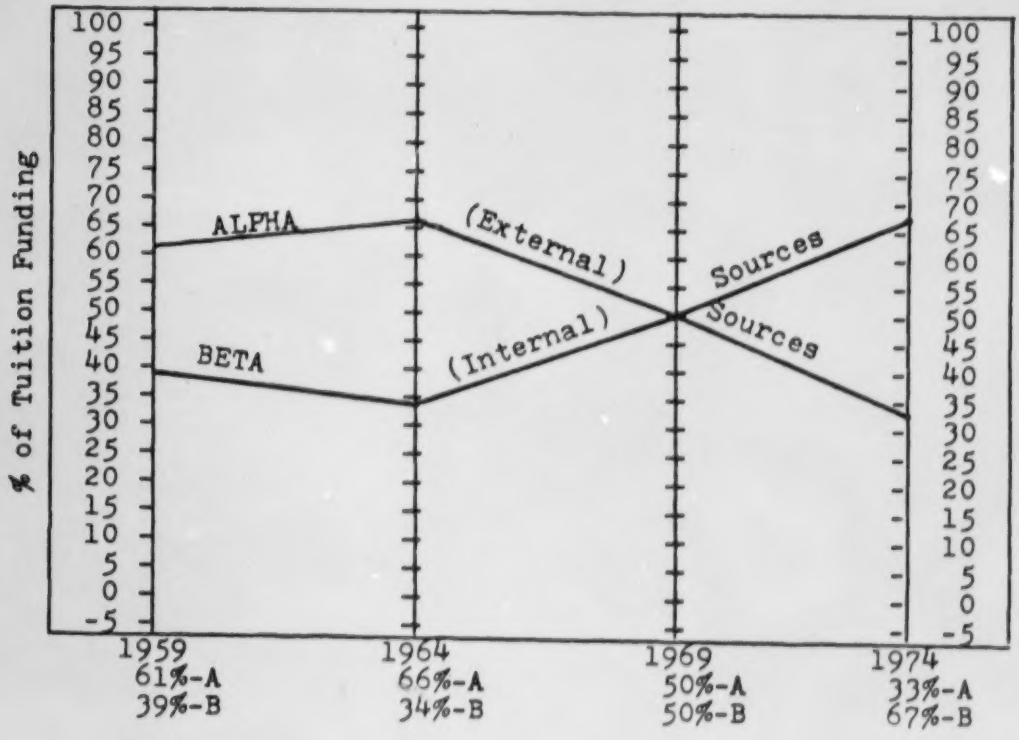
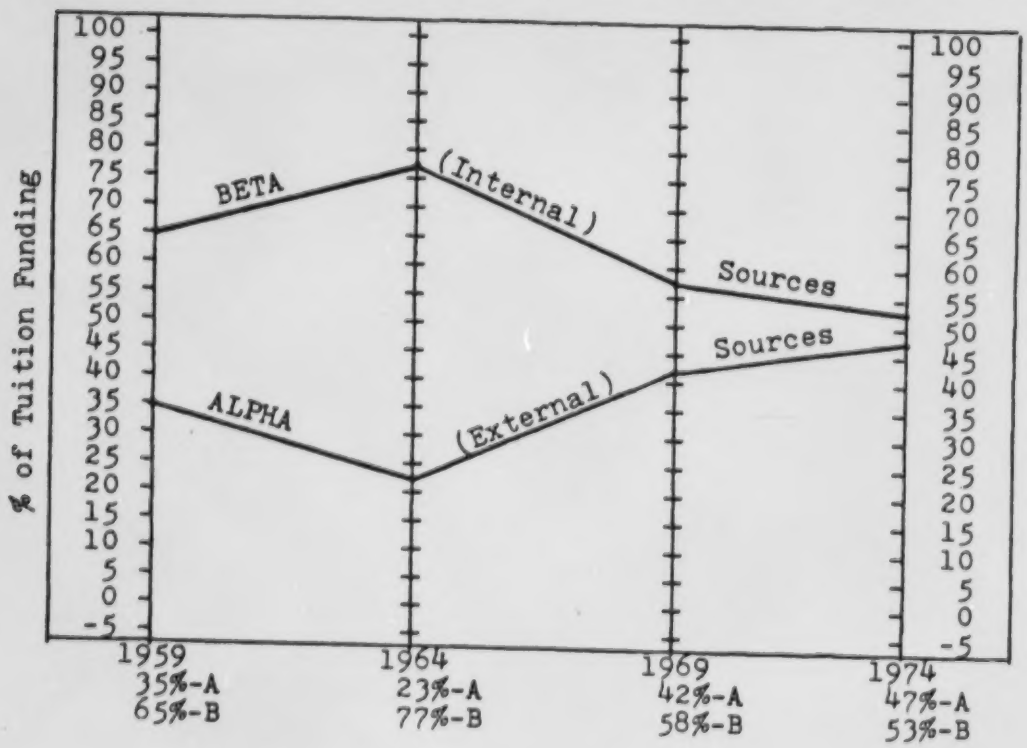


TABLE 3

Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All ALPHA (External) and BETA (Internal) Sources for Recipients of Graduate Degrees in Law
(Code: L (Summary) - A & B)

Degrees	Usable Responses				Totals
	1959	1964	1969	1974	
L.L.B.	19	18	0	0	37
J.D.	0	0	34	97	131
Totals	19	18	34	97	168

Trend: ALPHA-Increasing BETA-Decreasing
Classification: ALPHA (External) BETA (Internal)
Substantiated Hypothesis: ALPHA-Alternate BETA-Alternate



three tuition dollars was secured from an external source by law students in 1959. However, by 1974 he was able to secure roughly one out of every two dollars from an external source. Clearly, the external funding trend is up and the internal trend is down. These trends reject the general research hypothesis. The increasing ALPHA and decreasing BETA trends substantiate the alternate hypothesis for Law.

Medicine. External (ALPHA) sources of tuition funding accounted for 6% of all tuition dollars in 1959; 11% in 1964; 37% in 1969; and 28% in 1974. Conversely, internal (BETA) sources accounted for 94% in 1959; 89% in 1964; 63% in 1969; and 72% in 1974 (Table 4).

This trend showed that the recipient of the M.D. Degree in 1959 funded only six cents out of every tuition dollar on an external basis; by 1974 he was able to finance 28 cents out of every tuition dollar externally. Clearly, the external funding trend is up (although not to the level of the law graduate).

These trends reject the research hypothesis in favor of the alternate hypothesis.

Masters Degrees. Recipients of Masters Degrees were found in the Business Administration and Education sub-populations only. External (ALPHA) sources of tuition funding within this sub-population accounted for 64% of

TABLE 4

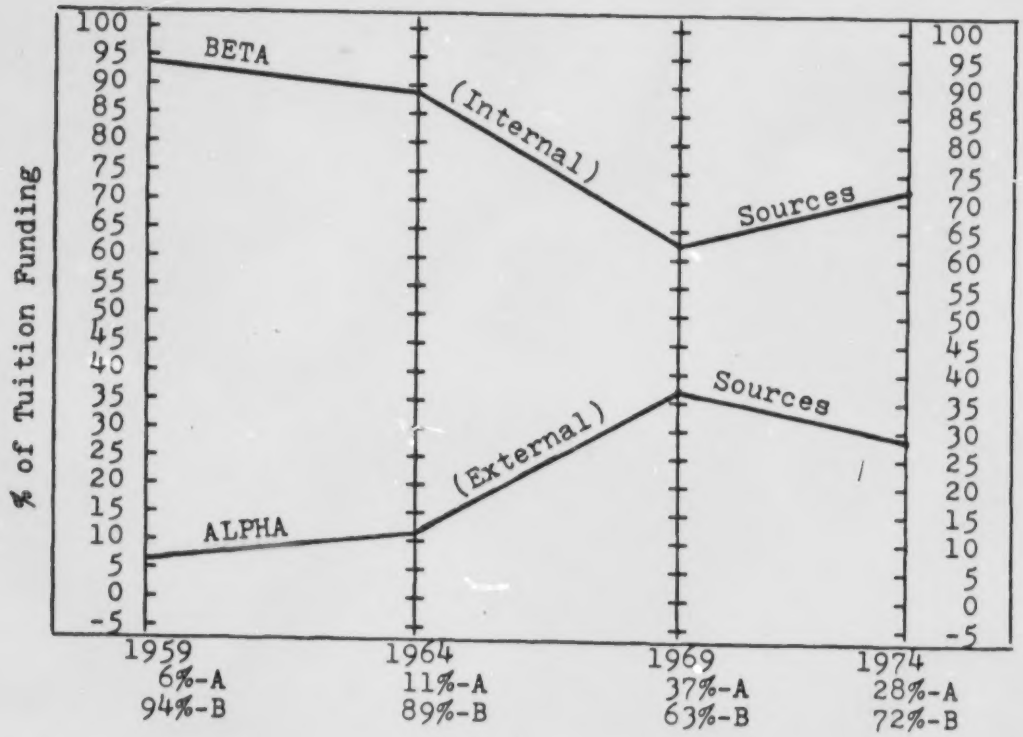
Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All ALPHA (External) and BETA (Internal) Sources for Recipients of Graduate Degrees in Medicine
(Code: M (Summary) - A & B)

Degrees	Usable Responses				Totals
	1959	1964	1969	1974	
M.D.	52	47	51	71	221
Totals	52	47	51	71	221

Trend: ALPHA-Increasing BETA-Decreasing

Classification: ALPHA (External) BETA (Internal)

Substantiated Hypothesis: ALPHA-Alternate BETA-Alternate



all tuition dollars in 1959; 59% in 1964; 61% in 1969; and 62% in 1974. Conversely, internal (BETA) sources accounted for 36% in 1959; 41% in 1964; 39% in 1969; and 38% in 1974 (Tables 5 and 6).

Clearly, both ALPHA and BETA trends are level, ALPHA moving from 64% in 1959 to 62% in 1974 and BETA moving from 36% in 1959 to 38% in 1974 (Table 7).

In this instance the null hypothesis is substantiated.

Ph.D. Degrees. Recipients of Ph. D. Degrees were found in the Business Administration and Education sub-populations only. These degree recipients were grouped together in order to determine tuition funding trends for recipients of Ph.D. Degrees within the research population.

External (ALPHA) sources of tuition funding within this sub-population accounted for 38% of all tuition dollars in 1959; 50% in 1964; 42% in 1969; and 35% in 1974. Conversely, internal (BETA) sources accounted for 62% in 1959; 50% in 1964; 58% in 1969; and 65% in 1974 (Tables 8 and 9).

Although ALPHA sources are down only slightly between 1959 and 1974 (38% to 35%), they are substantially down between 1964 and 1974 (50% to 35%) (Table 10).

These conclusions appear valid only for Doctor's

TABLE 5

Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All ALPHA (External) Sources for Recipients of Masters Degrees (Code: Masters (Summary) - A)

Degree	Usable Responses				Total
	1959	1964	1969	1974	
All Masters	40	52	107	105	304

Trend: Level Classification: ALPHA (External)

Substantiated Hypothesis: Null

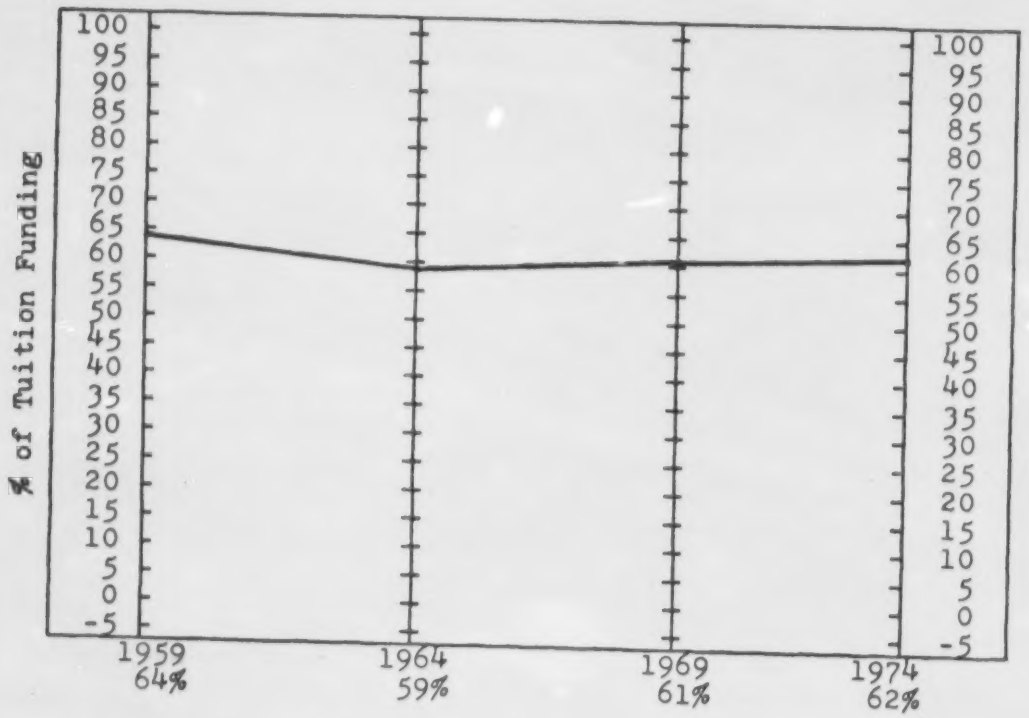


TABLE 6

Response Summary and Tuition Funding Trend Curve Showing
% of Tuition from All BETA (Internal) Sources
for Recipients of Masters Degrees
(Code: Masters (Summary) - B)

Degree	Usable Responses				Total
	1959	1964	1969	1974	
All Masters	40	52	107	105	304

Trend: Level Classification: BETA (Internal)

Substantiated Hypothesis: Null

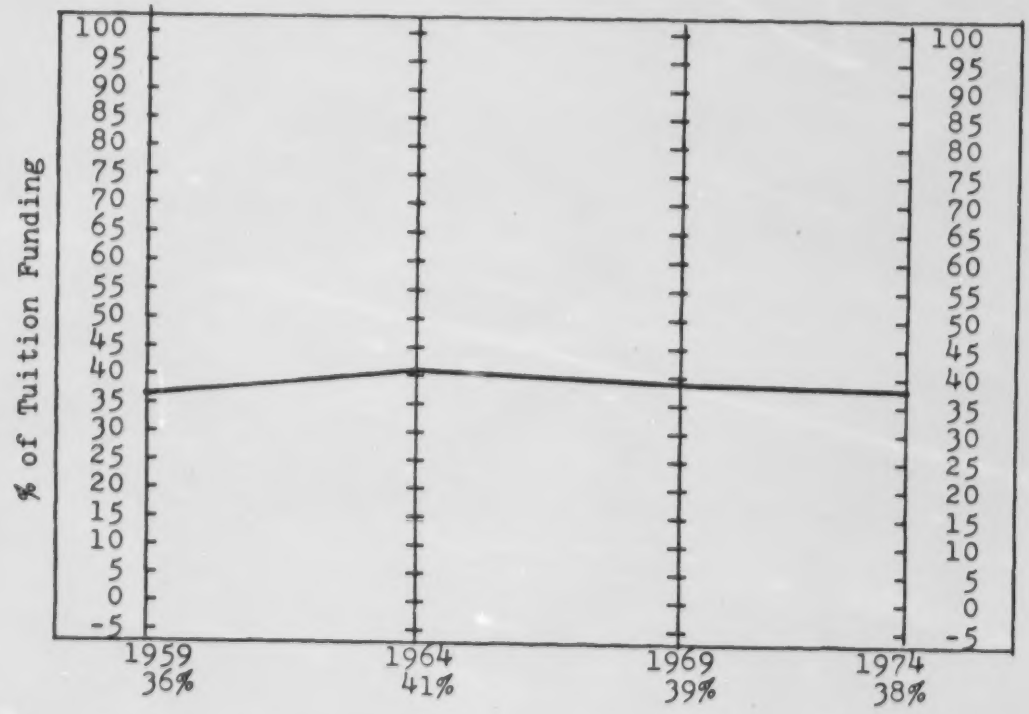


TABLE 7

Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All ALPHA (External) and BETA (Internal) Sources for Recipients of Masters Degrees
(Code: Masters (Summary) - A & B)

Degree	Usable Responses				Total
	1959	1964	1969	1974	
All Masters	40	52	107	105	304

Trend: ALPHA-Level BETA-Level

Classification: ALPHA (External) BETA (Internal)

Substantiated Hypothesis: ALPHA-Null BETA-Null

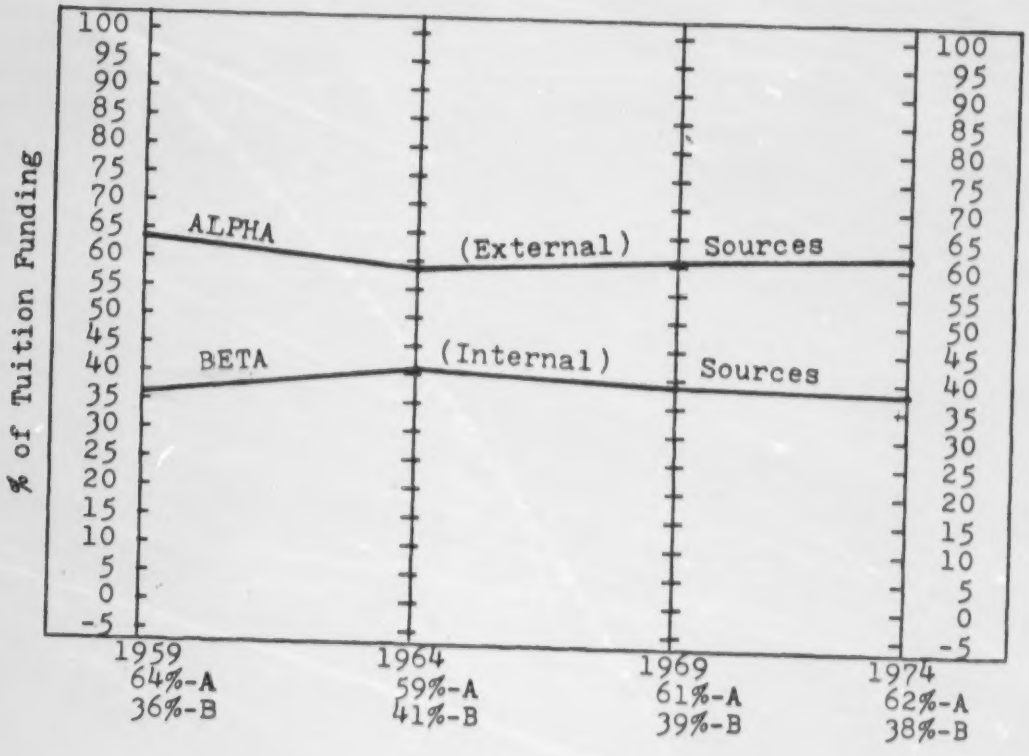


TABLE 8

Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All ALPHA (External) Sources for Recipients of Ph.D. Degrees (Code: Ph.D. (Summary) - A)

Degree	Usable Responses				Total
	1959	1964	1969	1974	
All Ph.D.	2	1	17	30	50

Trend: Decreasing Classification: ALPHA (External)

Substantiated Hypothesis: Research

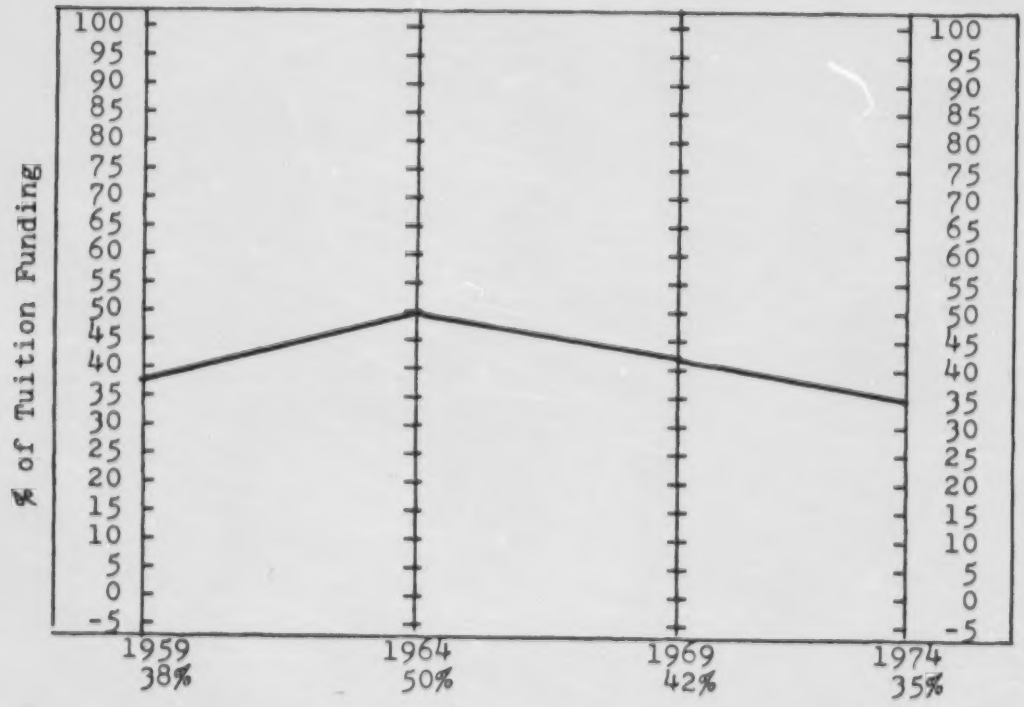


TABLE 9

Response Summary and Tuition Funding Trend Curve Showing
% of Tuition from All BETA (Internal) Sources
for Recipients of Ph.D. Degrees
(Code: Ph.D. (Summary) - B)

Degree	Usable Responses				Total
	1959	1964	1969	1974	
All Ph.D.	2	1	17	30	50

Trend: Increasing Classification: BETA (Internal)

Substantiated Hypothesis: Research

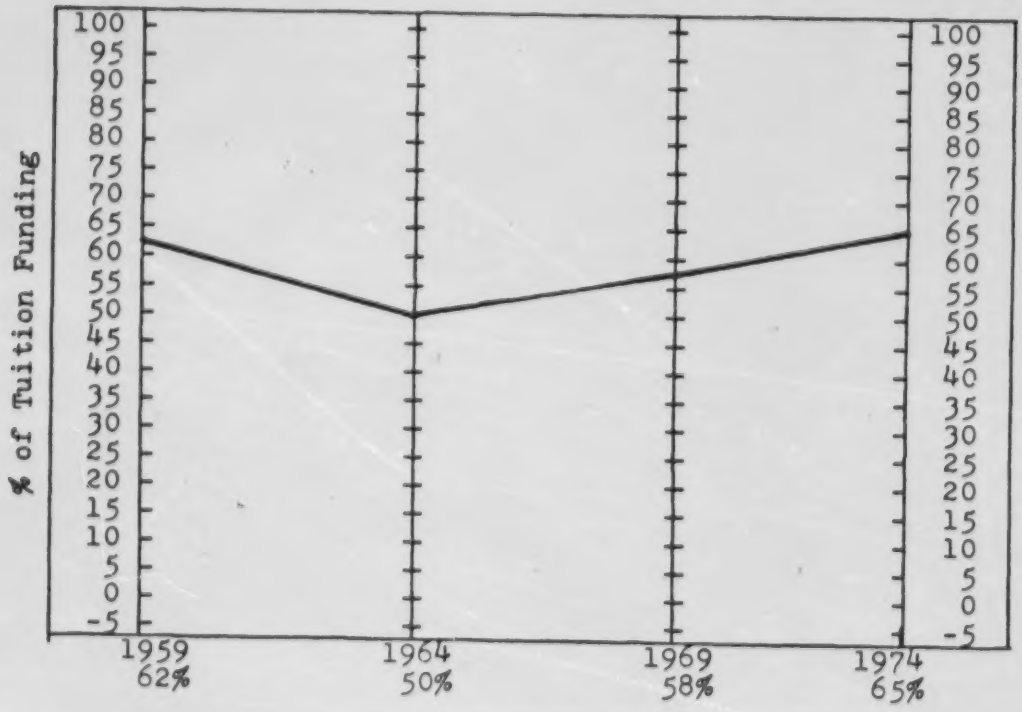


TABLE 10

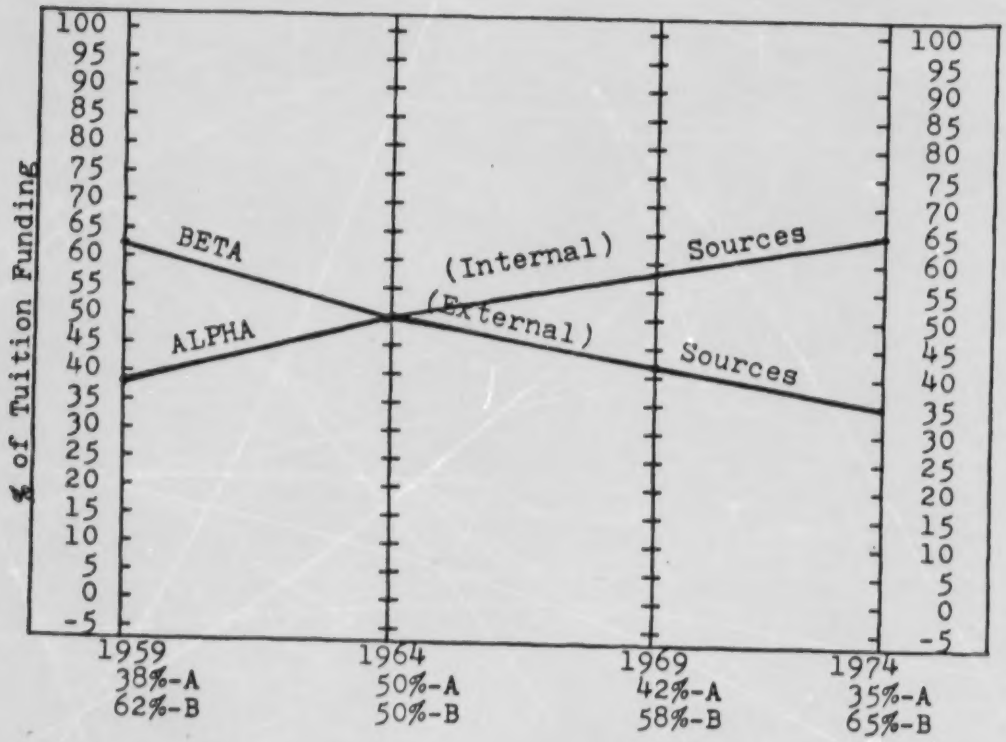
Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All ALPHA (External) and BETA (Internal) Sources for Recipients of Ph.D. Degrees
(Code: Ph.D. (Summary) - A & B)

Degree	Usable Responses				Total
	1959	1964	1969	1974	
All Ph.D.	2	1	17	30	50

Trend: ALPHA-Decreasing BETA-Increasing

Classification: ALPHA (External) BETA (Internal)

Substantiated Hypothesis: ALPHA-Research BETA-Research



50

of Philosophy in Education in the 1969 and 1974 sub-populations. The reason for this is the low response return for Doctor's of Philosophy in Business Administration (2) and the low response return for all Doctor's of Philosophy in 1959 and 1964 (3).

Because of this, the research hypothesis is accepted only for Doctor's of Philosophy in Education for the 1969 and 1974 sub-populations.

All Respondents. This group represented all 743 individuals responding to the survey. External (ALPHA) sources of tuition funding accounted for 32% of all tuition dollars in 1959; 35% in 1964; 50% in 1969; and 48% in 1974. Conversely, internal (BETA) sources accounted for 68% in 1959; 65% in 1964; 50% in 1969; and 52% in 1974 (Tables 11 through 13).

The ALPHA (external) trend has moved from approximately one out of three tuition dollars in 1959 to approximately one out of two in 1974.

The BETA (internal) trend has conversely shifted from approximately two out of three tuition dollars in 1959 to one out of two in 1974.

This composite summary clearly rejects the research hypothesis by showing that external funding has increased and internal funding has decreased for all programs taken as a group between 1959 and 1974 (Table 14).

TABLE 11

Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All ALPHA (External) Sources for Recipients of Graduate Degrees in All Four Programs
(Code: All Respondents (Summary) - A)

Degree	Usable Responses				Total
	1959	1964	1969	1974	
M.S. in C	4	9	37	6	56
MBA	12	10	28	72	122
Ph.D. in BA	0	0	0	2	2
M.A. in Ed.	15	17	24	25	81
Ed.M	9	16	18	2	45
Ph.D. in Ed.	2	1	17	28	48
L.L.B.	19	18	0	0	37
J.D.	0	0	34	97	131
M.D.	52	47	51	71	221
Totals	113	118	209	303	743

Trend: Increasing Classification: ALPHA (External)

Substantiated Hypothesis: Alternate

Table 11--Continued

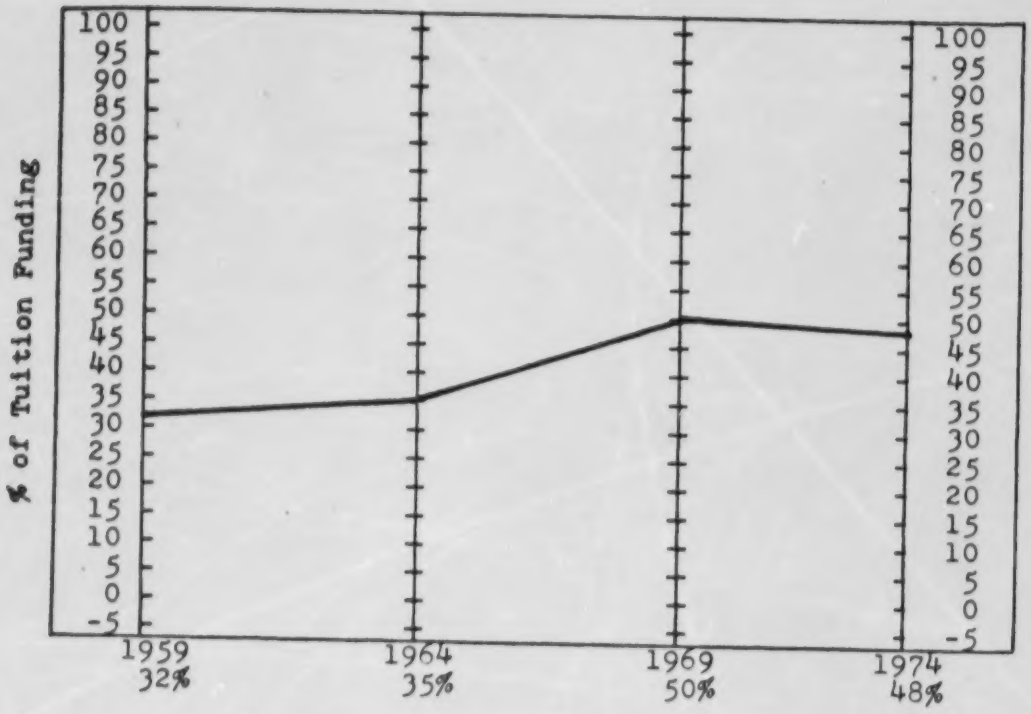


TABLE 12

Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All BETA (Internal) Sources for Recipients of Graduate Degrees in All Four Programs
(Code: All Respondents (Summary)-B)

Degree	Usable Responses				Total
	1959	1964	1969	1974	
M.S. in C	4	9	37	6	56
MBA	12	10	28	72	122
Ph.D. in BA	0	0	0	2	2
M.A. in Ed.	15	17	24	25	81
Ed.M	9	16	18	2	45
Ph.D. in Ed.	2	1	17	28	48
L.L.B.	19	18	0	0	37
J.D.	0	0	34	97	131
M.D.	52	47	51	71	221
Totals	113	118	209	303	743

Trend: Decreasing Classification: BETA (Internal)

Substantiated Hypothesis: Alternate

Table 12--Continued

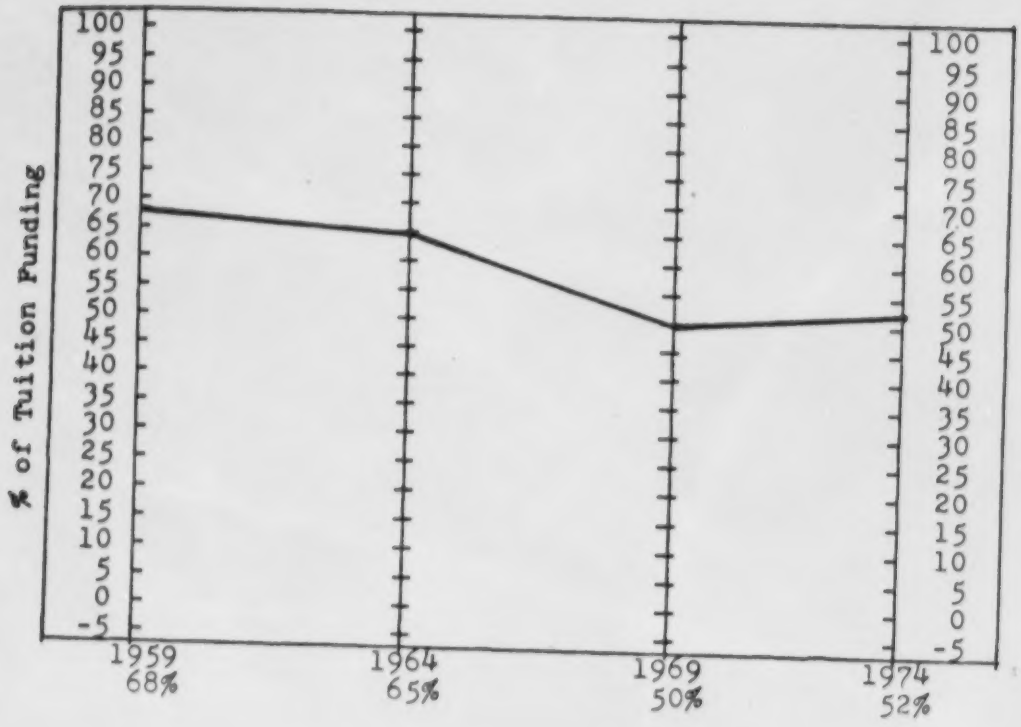


TABLE 13

Response Summary and Tuition Funding Trend Curve Showing % of Tuition from All ALPHA (External) and BETA (Internal) Sources for Recipients of Graduate Degrees in All Four Programs
(Code: All Respondents (Summary) - A & B)

Degree	Usable Responses				Total
	1959	1964	1969	1974	
M.S. in C	4	9	37	6	56
MBA	12	10	28	72	122
Ph.D. in BA	0	0	0	2	2
M.A. in Ed.	15	17	24	25	81
Ed.M	9	16	18	2	45
Ph.D. in Ed.	2	1	17	28	48
L.L.B.	19	18	0	0	37
J.D.	0	0	34	97	131
M.D.	52	47	51	71	221
Totals	113	118	209	303	743

Trend: ALPHA-Increasing BETA-Decreasing

Classification: ALPHA (External) BETA (Internal)

Substantiated Hypothesis: ALPHA-Alternate BETA-Alternate

Table 13--Continued

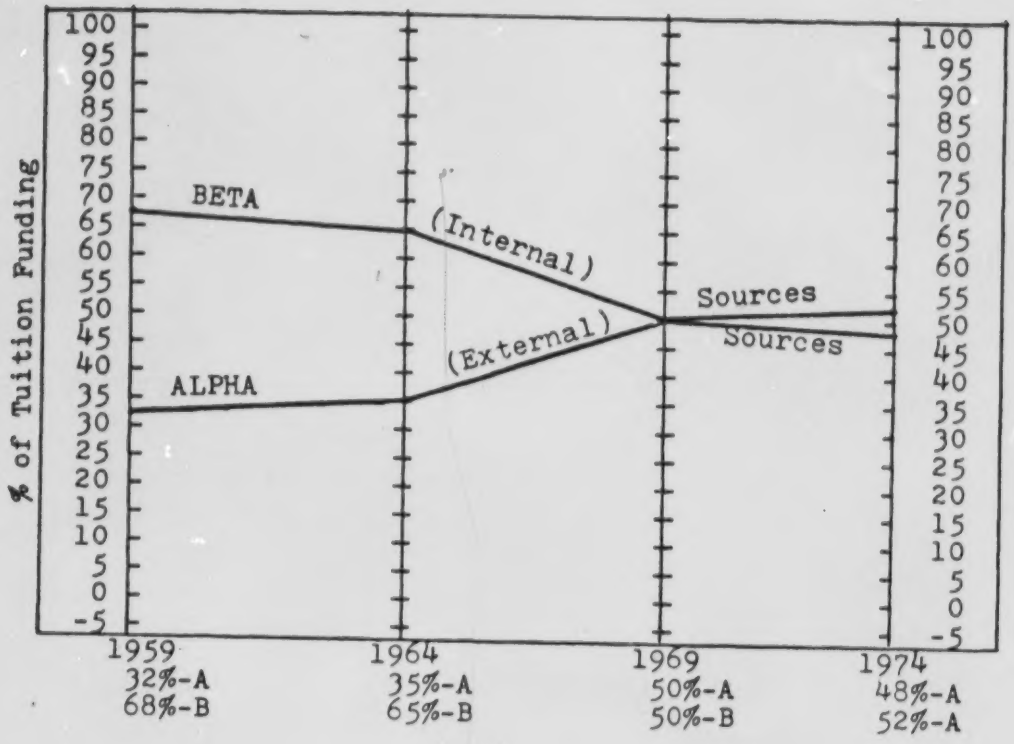


TABLE 14

ALPHA/BETA Summary Masters, Ph.D's., All Respondents

Masters Degrees				Ph.D. Degrees				All Respondents			
Year of Award	ALPHA	BETA	Total	Year of Award	ALPHA	BETA	Total	Year of Award	ALPHA	BETA	Total
1959	64%	36%	100%	1959	38%	62%	100%	1959	32%	68%	100%
1964	59%	41%	100%	1964	50%	50%	100%	1964	35%	65%	100%
1969	61%	39%	100%	1969	42%	58%	100%	1969	50%	50%	100%
1974	62%	38%	100%	1974	35%	65%	100%	1974	48%	52%	100%
Total	62%	38%	100%		37%	63%	100%		44%	56%	100%

CHAPTER V

ANALYSIS AND CONCLUSIONS

Interpretation

The general research hypothesis suggested that external (ALPHA) tuition funding would show declining trends from the 1950's to the 1970's. The findings generated from the research survey are listed in Table 15.

Before interpreting the data, it would be useful to present the magnitude of tuition costs in dollar terms (Table 16).

Results of the study revealed that the research population, when viewed as a homogeneous group utilized external (ALPHA) sources at an increasing rate for the four base years of the study. A further interpretation of the individual composite trend may best be made by analyzing each of the sub-populations.

Business Administration. The external (ALPHA) trend curve moved from 65% in 1959 to 74% in 1974. The major factor for this upward movement was the increasing significance of Employer Funding. Employer Funding defrayed 16% of tuition costs in 1959, increasing to 40% in 1974. This source alone was primarily responsible for the composite movement of the external trend

TABLE 15

External (ALPHA) Tuition Funding Trends and Substantiated Hypotheses by Sub-population Saint Louis University 1959-1974

Program/ Sub-population	% Change 1959-1974	% Change 1964-1974	% Change 1969-1974	External (ALPHA) Tuition Funding Trend	Substantiated Hypothesis
Business Administration	+ 9%	+27%	+ 9%	Increasing	Alternate
Education	-28%	-33%	-17%	Decreasing	Research
Law	+12%	+24%	+ 5%	Increasing	Alternate
Medicine	+22%	+17%	- 9%	Increasing	Alternate
Masters	- 2%	+ 3%	+ 1%	Level	Null
Ph.D's.	- 3%	-15%	- 7%	Decreasing	Research
Composite (All Respondents)	+16%	+13%	- 2%	Increasing	Alternate

TABLE 16

Tuition Costs in Dollars for the Four Specific Years Included in the Research[1]

Year	Business Administration[2]	Education[2]	Law	Medicine
	Credit Hour	Credit Hour	Semester	Semester
1959	$24.00	$24.00	$ 350.00	$1,000.00
1964	$30.00	$30.00	$ 475.00	$1,200.00
1969	$53.00	$53.00	$ 700.00	$2,100.00
1974	$70.00	$70.00	$1,100.00	$2,700.00
Approximate Requirement for Degree in Credit Hours/Semesters	30-36[3] Credit Hours	30-36[3] Credit Hours	6 Semesters	8 Semesters

[1]From Saint Louis University Bulletins.

[2]Graduate students in Business and Education typically carry from 3 to 9 credit hours per semester.

[3]This range applies to Masters Degrees and to Ph.D's. who have previously received a Masters Degree. Approximately 60-80 credit hours beyond the Bachelors Degree is required for those skipping the Masters Degree.

curve from 65% to 74% over the 4 base years of the study.

Internal (BETA) Source, Student Funding--From Current Income, declined from 28% in 1959 to 17% in 1974, a decrease of 11 percentage points. It would appear that Employer Funding has replaced Student Funding--From Current Income as the most important source of tuition funding over the research period. With their demonstrated increased support, Saint Louis metropolitan industry has made the decision that graduate programs in Business Administration are valuable investment alternatives for the corporate enterprise. By providing more funds to management level employees for the purpose of achieving the MBA or its equivalent, local industry may be viewed as investing in its most important asset, namely its management talent. While Employer Funding has increased from 16% in 1959 to 40% in 1974, it achieved its peak at 53% in 1969. The decline from 53% in 1969 to 40% in 1974 may be viewed as a temporary condition resulting from the depressed level of economic activity of the past two years.

In the final analysis, corporate management continually evaluates the results of its fringe benefit program in terms of benefit to the enterprise. If investing its money in furthering its employees' formal education beyond the Bachelor's Degree proves successful,

it will undoubtedly continue its support of graduate programs in Business Administration.

Accordingly, those responsible for graduate programs in Business Administration should increase their efforts in "selling" the importance of graduate business education to industry. The School of Business and Administration should not limit itself to simply the recruitment of graduate students. Rather, it should also commit itself to the recruitment of the industrial employer--the one who may well be financing tuition charges. Such recruitment of the industrial employer could include the holding of seminars and symposia for personnel and management development executives. This program would "market" the MBA program as a useful tool in the development of managers within all levels of the business enterprise.

Education. The external (ALPHA) trend curve moved from 61% in 1959 to 33% in 1974, a decrease of 28 percentage points. The major reason for this downward movement appeared to be the continued decline in the numbers of students from religious orders, in the past, a stable and important source of tuition revenue. This decline has been precipitous (46% in 1959; 4% in 1974--a decline of 42 percentage points). This source of funding was primarily offset by Student Funding--From

Current Income, an internal (BETA) source, (32% in 1959; 51% in 1974, an increase of 19 percentage points) and Student Savings, an internal (BETA) source (5% in 1959; 9% in 1974).

The continuing decline in external funding for graduate programs in Education appears to have occurred because of a decline in the number of religious and because of their continuing graduate studies in public and non-denominational private institutions. Because the numbers of religious are expected to remain steady or even decline, and because of the trend towards secular education for such students, openings in the graduate program in Education most likely will be filled by a continuing increase in the number of lay students. Lay funding has tended to be heavily internal. Because of this, adjustments may be required by the institution to strengthen, or even maintain its graduate program in Education. Such adjustments could include a stronger effort in obtaining external tuition funding for worthy students and increased efforts to recruit minorities, foreign students, and laymen.

Law. The external (ALPHA) trend curve moved from 35% in 1959 to 47% in 1974, an increase of 12 percentage points. The major reason for this upward movement appears to be the increasing significance of

Federal Government Funding--Loans. Within Saint Louis University, Federal Government loans defrayed 0% of tuition costs in 1959 but accounted for 18% in 1974. Due to the increasing significance of Federal Government loans, the internal (BETA) sources Student Funding--From Current Income and Student Savings declined from 22% in 1959 to 15% in 1974 and from 17% in 1959 to 6% in 1974 respectively.

It is important to note that the 18% increase in Federal Government Funding through loans from 1959 to 1974 was offset exactly by the combined decline of Student Funding--From Current Income and Student Savings by 7% and 11% (total 18%).

The law school funding trends should be closely monitored so as to take the necessary action if a shift in funding should develop. External funding increases have been realized primarily because of increasing amounts of Federal loan funds and not because of the law students' ability to attract grant funds. Second, loan funds must be repaid, grant funds are not. Third, the continued utilization of loan funds by law students will be significantly affected by the students' assessment of the future demand and marketability of the legal profession. This anticipated earning potential must remain high enough for the loan to be repaid out

of anticipated income. If future earning potential drops to a point where the education does not yield a satisfactory future monetary return, those loan funds may not be considered as a desirable alternative for external financing of tuition. The law school should, therefore, consider loan funds as "soft" financing--financing that could be eliminated by a corresponding "softness" in the job market.

Medicine. The external (ALPHA) trend curve moved from 6% in 1959 to 28% in 1974, an increase of 22 percentage points. The probable reasons for this upward movement relate to the rising trend curves representing State Government Funding--Loans, State Government Funding--Grants, Federal Government Funding--Loans, Federal Government Funding--Grants, and University Funding--Loans. These upward movements and the magnitude of movement is reflected in Table 17. The internal (BETA) trend curve moved from 94% to 72%, a decrease of 22 percentage points. The sources primarily responsible for this decline are shown in Table 18.

The tuition funding trends in Medicine generate optimism for those qualified graduate students who possess the desirable attributes that are required for a good physician, but who lack economic resources. Parent funding has declined 29% between 1959 and 1974.

TABLE 17

Major External (ALPHA) Tuition Funding Source Increases--Medicine (1959-1974)

Source Number	Source Description	Composite % of Tuition Funding 1959	Composite % of Tuition Funding 1974	Increase
1	State Government Funding-Loans	0	7	7
2	State Government Funding-Grants	0	3	3
3	Federal Government Funding-Loans	0	9	9
4	Federal Government Funding-Grants	0	3	3
5	University Funding-Loans	0	3	3

TABLE 18

Major Internal (BETA) Tuition Funding Source Decreases--Medicine (1959-1974)

Source Number	Source Description	Composite % of Tuition Funding 1959	Composite % of Tuition Funding 1974	Decrease
19	Parent Funding-Current Income	33	22	11
20	Parent Savings	32	14	18

This funding decrease has been absorbed by loan funds and grants.

The field of medicine has an excellent outlook as regards to anticipated income. The continuing demands for the profession, especially in urban, inner city, and rural areas should provide for continuing external tuition funding support by both state and Federal governments. Because of the upward trends in external funding and because recipients of the M.D. degree can expect extremely high future monetary returns, Saint Louis University should seriously consider raising the tuition for medical students. Such an increase in tuition could cover the cost of medical education completely, or possibly go further and help defray some of the losses being sustained by other programs within the university. This proposed increase in medical school tuition would not necessarily result in limiting this type of education to the economically affluent. The increases in external funding clearly show that loans and grants are being made available for those who need financial assistance.

Ideally, grant programs could provide several years of community service in rural or economically depressed areas in return for the grant.

Loan programs could provide for amortization at market interest rates, considering the magnitude of the average income of the M.D. in the private sector.

Masters Degrees. With reference to Masters Degrees, the external (ALPHA) trend curve has been maintained consistently at approximately 61% for the four base years of the study; conversely, the internal (BETA) curve has been maintained at approximately 39% for the same period. Strict interpretation of the trends leads to the conclusion of level ALPHA and BETA funding throughout the period. The level trends are averages of increasing external (ALPHA) funding in Business Administration and of decreasing external (ALPHA) funding in Education.

Ph.D. Degrees. Forty-five of the 50 respondents belonged to the 1969 and 1974 Education sub-population. Because of this, a heavy bias towards Education and away from Business Administration emerged in the latter half of the research period (1969 and 1974). The decreasing external (ALPHA) funding for the Ph.D. group is, therefore, consistant with the trend previously shown for the Education sub-population. The trends in the Ph.D. sub-population should therefore be considered

indicative only for Doctors of Philosophy in Education between 1969 and 1974.

Composite (All Respondents). The external (ALPHA) trend curve moved from 32% in 1959 to 48% in 1974; conversely, the internal (BETA) curve moved from 68% in 1959 to 52% in 1974. This translates to a composite external funding ratio of approximately one dollar out of three dollars in 1959. By 1974 this ratio shifted to approximately one dollar out of two dollars. The primary drag on the external (ALPHA) curve was Education.

Conclusions

The general research hypothesis stated that external tuition funding would decline over the time period researched. The alternate hypothesis stated the opposite.

The research population and all sub-populations excluding recipients of graduate degrees in Education, recipients of Masters Degrees, and recipients of Ph.D. Degrees were found to exhibit tuition funding trends substantiating the Alternate Hypothesis. The Education and Ph.D. sub-populations substantiated the Research Hypothesis. The Masters Degree sub-population substantiated the Null Hypothesis. Both the Masters and Ph.D. sub-populations included a substantial number of Education respondents. Without such Education respondents

the Masters sub-population would have substantiated the Alternate Hypothesis. The Ph.D. sub-population was 90% Education and so its substantiation of the Research Hypothesis reflects more an Education bias than its Ph.D. composition.

Conclusions--Saint Louis University.

1. Business Administration. The future expansion of the graduate program in Business Administration will most likely depend on industry's continued support of the graduate students' tuition. The School of Business and Administration should recognize this by recruiting industrial support for its programs.

2. Education. The profile of the student body within the graduate program in Education has shifted and is continuing to shift from religious to lay. This study has shown that the lay student in Education relies heavily on internal tuition funding sources. Because of this, adjustments may be required by the Department of Education. Such adjustments should include: (a) increased efforts in obtaining external tuition funding for worthy graduate students; (b) an increased effort in the recruitment of minorities, foreign students, and members of the secular community so as to fill openings occurring from the gradual decline in the numbers of religious.

3. Law. The law student has been successful in obtaining external tuition funding. This funding, however, has been in the form of government loans. Certainly, the continuance of this upward trend should be encouraged by the Law School through its efforts to maximize the availability of such funding. Such efforts would probably be optimized through appeals to appropriate legislative bodies by prominent members of the University's Law School faculty, administration, alumni association, Bar groups, and other professional associations.

It is important to note, however, that loan funds utilized to finance law school tuition provide a viable tuition funding alternative only when the prospective job market for lawyers provides an acceptable rate of return on the tuition investment. A glut in the marketplace for attorneys would soon end the use of loan funds as a practical method of financing a law degree. Loan funding should, therefore, be considered "soft financing" subject to critical rate of return analysis by prospective borrowers. Financial and academic officers should anticipate a future reduction or complete elimination of government loan funding and plan for viable alternatives.

4. Medicine. External tuition funding for

medical students has provided increasing proportions of total funding. Trends over the four base years included in the study indicate the likelihood that external sources will continue to provide funding in the same, or higher ratios, even if tuition costs are raised. Because of this, the medical school should consider raising the tuition to cover all of its costs or to an even higher level so as to partially defray the deficit budgets incurred by other programs within the university. Increased tuition costs financed through government grants and loans could be defrayed by a commitment to government service for a limited period and by amortizing the repayment of loans at market interest rates. Such amortization over a period of years should be well within the financial ability of the M.D., considering his prospective future income level.

Conclusions--General. By isolating individual cost components in graduate higher education a clear cost differential can be shown between private and public sectors. These cost differentials relate, in the main, to tuition costs. This is why it is important for the financial officer of the private institution to accurately gauge the ebb and flow of potential external tuition funding, by program, since the student's costs, other than tuition, tend to be offsetting. Empirical evidence

verifying tuition funding trends can be an important tool for the institution's financial administration in the planning required to meet the future demand upon its resources.

The data generated from this study may generate additional questions. It should be the financial officer's responsibility to ask them. Such questions include:

1. Will important external tuition funding sources continue at present levels?

2. What steps can be taken by financial and academic officers to increase the level of external funding?

3. Are contingency plans in effect if important selected external funding sources decline or disappear?

4. How quickly can the institution's resources be re-directed so as to better take advantage of new potential funding from sources hitherto untapped?

5. Is a program too dependent upon one external source?

It should be re-emphasized that the findings and conclusions of this research should be limited to the economic environment within Saint Louis University for the period of the study, and should not be construed to measure the impact of a change in tuition funding at

other private urban universities. Further study and research are essential before any regional or national conclusions can be shown. This research study had one basic objective, namely to study the trend of tuition funding for the four base years 1959, 1964, 1969, and 1974, for those graduate students who elected to earn graduate degrees in Business Administration, Education, Law, and Medicine.

Although the specific funding trends elicited from this research should be limited to the environment within Saint Louis University, trends in funding student costs in graduate private education may be critical to the long run survival of pluralistic graduate education in the United States.

It would appear that there is great student reliance upon external financial assistance in American graduate schools. Private graduate education, therefore, should continually monitor potential sources of student funding so as to guarantee a continued balance between private and public graduate education. How best to guarantee the survival of pluralistic graduate education is subject to debate. Growth has been stressed during the recent past. Change, however, is now emerging in importance. According to Schein (1972):

> America's colleges and universities have been preoccupied with problems of growth for several

> decades. Now, although growth is still a matter of concern, there is increasing preoccupation with change. That many changes are needed is a matter of widespread agreement. They are required to help higher education adjust to the consequences of its recent rapid expansion and to new expectations of both students and society. There is very little agreement, on the other hand, about what changes should be undertaken and how change can be accomplished [Schein, p. xi].

The rapid increase in student cost of private graduate education in the United States is a factor of change that provides a challenge for society. How this challenge is met may determine the future of graduate education in this country. Innovative, flexible methods of defraying mounting student cost can strengthen all private institutions; conversely, outmoded, rigid approaches may weaken private institutions by limiting the student to the public institution solely on the basis of his limited financial resources. Sources of external support must necessarily include the Federal Government. According to Mayhew (1973):

> (There is a) financial posture of the Carnegie Commission on Higher Education. The commission maintains that some economies of operation are possible, that pluralistic support for higher education is desirable, and that the federal government must assume a larger burden for particular kinds of educational problems [Mayhew, p. 340].

This research tended to show that graduate education in the United States is not monolithic and that one must avoid the temptation to generalize on a multi-

disciplinary basis. Each program under study seemed to be subjected to special external influences resulting in both favorable and unfavorable funding outlooks. The flow of tuition funding for each program was not an even flow over the 15 year time period.

Because each program displayed special characteristics in regards to its ability to attract external tuition funding, future research would probably be most beneficial if it were carried out on a program by program basis.

This study examined sources of graduate tuition funding for four specific programs at one private urban university. Financial officers at other private institutions throughout the United States may wish to utilize this research methodology to determine tuition funding trends at their institution. Past trends do not, however, assure future developments along the same lines. Trend analyses must provide for developments that may be difficult to anticipate. Economic recession, eroding job markets, and changes in educational and religious philosophies may all affect the tuition funding trends of the future.

APPENDIX A

Survey Questionnaire

Questionnaire Form

TUITION FUNDING QUESTIONNAIRE

Your Discipline is: ☐ BUSINESS ADMINISTRATION (COMMERCE), ☐ EDUCATION, ☐ LAW, ☐ MEDICINE

Your Graduate Degree Awarded in: ☐ 1969 ☐ 1964 ☐ 1969 ☐ 1974

	Descriptions of Tuition Funding Source	Col. I	% of Total Tuition (From this Source) Col. II
1	(A) State Government Funding — Loans		
2	(A) State Government Funding — Grants		
3	(A) Federal Government Funding — Loans		
4	(A) Federal Government Funding — Grants		
5	(A) University Funding — Loans		
6	(A) University Funding — Fellowships		
7	(A) Tuition Waiver or Remission (Associates/Spouses/Children of Faculty)		
8	(A) Tuition Waiver or Remission (Faculty/Staff/Spouses/Children)		
9	(A) Employer Funding		
10	(A) Veterans Benefit Funding		
11	(A) Foreign Government Funding		
12	(A) Funding by Religious/Other Church		
13	(A) Private Scholarship		
14	(A) Industrial Scholarship		
15	(A) Foundations/Trusts		
16	(A) Other External Source		
17	(B) Student Funding — From Current Income		
18	(B) Student Savings		
19	(B) Parent Funding — From Current Income		
20	(B) Parent Savings		
21	(B) Spouse Funding — From Current Income		
22	(B) Spouse Savings		
23	(B) Conventional Loan — Student		
24	(B) Conventional Loan — Parent		
25	(B) Conventional Loan — Spouse		
26	(B) Private Trust Fund For the Benefit of the Student		
27	(B) Gift		
28	(B) Other Internal Source		

PLEASE BE SURE TO ENTER ALL 100% OF TOTAL (II) 100%

Write the full name of your school here: _____

i.e. Master of Business Administration, Master of Arts in Education, Doctor of Philosophy in Business Administration, Doctor of Philosophy in Education, Doctor of Medicine, Bachelor of Laws, Juris Doctor, Master of Science in Commerce, etc.)

If you wish a typed copy of this research, please fill in your name and address below. If not, leave blank.

_____

_____

_____

APPENDIX B

Survey Response Summaries

TABLE 19

Survey Response--Grand Summary

Program	Year Degree Awarded	Population	Usable Responses	%
Business Administration	1959	27	16	59
" "	1964	31	19	61
" "	1969	121	65	54
" "	1974	131	80	61
Education	1959	56	26	46
" "	1964	79	34	43
" "	1969	127	59	46
" "	1974	84	55	65
Law	1959	42	19	45
"	1964	41	18	44
"	1969	62	34	55
"	1974	223	97	43
Medicine	1959	111	52	47
"	1964	95	47	49
"	1969	93	51	55
"	1974	130	71	55
All Programs	All Years	1453	743	51

TABLE 20

Survey Response Summary by Degree

Program	Year of Award	M.S. in C.	MBA	Ph.D. in B.A.	M.A. in Ed.	Ed.M.
Business Administration	1959	4	12			
" "	1964	9	10			
" "	1969	37	28			
" "	1974	6	72	2		
Education	1959				15	9
" "	1964				17	16
" "	1969				24	18
" "	1974				25	2
Law	1959					
"	1964					
"	1969					
"	1974					
Medicine	1959					
"	1964					
"	1969					
"	1974					
TOTAL	All Years	56	122	2	81	45

TABLE 20.--Continued

Program	Year of Award	Ph.D. in Ed.	L.L.B.	J.D.	M.D.	Total
Business Administration	1959					16
" "	1964					19
" "	1969					65
" "	1974					80
Education	1959	2				26
" "	1964	1				34
" "	1969	17				59
" "	1974	28				55
Law	1959		19			19
"	1964		18			18
"	1969			34		34
"	1974			97		97
Medicine	1959				52	52
"	1964				47	47
"	1969				51	51
"	1974				71	71
TOTAL	All Years	48	37	131	221	743

TABLE 21

Survey Response Summary by Program

Program	Population	Usable Responses	%
Business Administration	310	180	58
Education	346	174	50
Law	368	168	46
Medicine	429	221	52
All Programs	1453	743	51

TABLE 22

Survey Response Summary by Year

Year Degree Awarded	Population	Usable Responses	%
1959	236	113	48
1964	246	118	48
1969	403	209	52
1974	568	303	53
All Years	1453	743	51

TABLE 23

Intra-Program Survey Response Summary--
Business Administration

Year Degree Awarded	Population	Usable Responses	%
1959	27	16	59
1964	31	19	61
1969	121	65	54
1974	131	80	61
All Years	310	180	58

TABLE 24

Intra-Program Survey Response Summary--Education

Year Degree Awarded	Population	Usable Responses	%
1959	56	26	46
1964	79	34	43
1969	127	59	46
1974	84	55	65
All Years	346	174	50

TABLE 25

Intra-Program Survey Response Summary--Law

Year Degree Awarded	Population	Usable Responses	%
1959	42	19	45
1964	41	18	44
1969	62	34	62
1974	223	97	43
All Years	368	168	46

TABLE 26

Intra-Program Survey Response Summary--Medicine

Year Degree Awarded	Population	Usable Responses	%
1959	111	52	47
1964	95	47	49
1969	93	51	55
1974	130	71	55
All Years	429	221	52

TABLE 27

Intra-year Survey Response Summary--1959

Program	Population	Usable Responses	%
Business Administration	27	16	59
Education	56	26	46
Law	42	19	45
Medicine	111	52	47
All Programs	236	113	48

TABLE 28

Intra-year Survey Response Summary--1964

Program	Population	Usable Responses	%
Business Administration	31	19	61
Education	79	34	43
Law	41	18	44
Medicine	95	47	49
All Programs	246	118	48

TABLE 29

Intra-year Survey Response Summary--1969

Program	Population	Usable Responses	%
Business Administration	121	65	54
Education	127	59	46
Law	62	34	62
Medicine	93	51	55
All Programs	403	209	52

TABLE 30

Intra-year Survey Response Summary--1974

Program	Population	Usable Responses	%
Business Administration	131	80	61
Education	84	55	65
Law	223	97	43
Medicine	130	71	55
All Programs	568	303	53

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